I (WE) CLAIM:

1. A method for manufacturing a multi-dimensional array of N x M elements where both N and M are greater than 1, the method comprising:

(a) positioning at least two matching layers operable to conduct electric potential on at least one element of the array;

(b) dicing the at least two matching layers in azimuth and elevation; and

(c) electrically connecting one of the at least two matching layers to transducer material and another of the at least two matching layers to one of a ground foil and a signal trace.

2. The method of Claim 1 wherein (a) comprises positioning three matching layers operable to conduct electric potential on the at least one element, and (b) comprises dicing the three matching layers.

3. The method of Claim 1 wherein all matching layers on the at least one element are operable to conduct electric potential.

4. The method of Claim 1 wherein (b) comprises dicing the at least two matching layers with cuts used to dice transducer material into the elements.

5. A multi-dimensional array of N x M elements where both N and M are greater than 1, the array comprising:

transducer material arranged as the array of elements;

at least two electrically conductive matching layers on the transducer material.

6. The array of Claim 5 further comprising:

kerfs defining the elements, the kerfs through both the transducer material and the at least two electrically conductive matching layers.

7. The array of Claim 5 wherein the at least two electrically conductive matching layers comprises three electrically conductive matching layers.

8. The array of Claim 5 wherein all matching layers on the array are electrically conductive.

9. A method for manufacturing a multi-dimensional array of N x M elements where both N and M are greater than 1, the method comprising:

(a) positioning at least two matching layers on transducer material; and

(b) dicing the at least two matching layers and transducer material in azimuth and elevation at a same time, the dicing operable to separate a first element from a second element.